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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,923	06/27/2003	Helmut Bentivoglio	SCH-00069	8651
7590 02/17/2005 Warn, Burgess & Hoffmann, P.C. P.O. Box 70098 Rochester Hills, MI 48307			EXAMINER NEGRON, ISMAEL	
			ART UNIT 2875	PAPER NUMBER

DATE MAILED: 02/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,923

Applicant(s)

BENTIVOGLIO ET AL.

Examiner

Ismael Negron

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on January 18, 2005 has been entered. No claim has been amended. Claims 1-10 have been cancelled. Claims 11-23 have been added. Claims 11-23 are still pending in this application, with claim 11 being independent.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "conventional mechanical push button" in Claim 23 is a relative term which renders the claim indefinite. Conventional mechanical push button switches come in a variety of different sizes, the claim and the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over SCHULZ (U.S. Pat. 5,880,538) and DESMOND et al. (U.S. Pat. 5,820,245).

SCHULZ discloses a switch having:

- **at least one sensor (as recited in Claim 11), Figure 1, reference number 2;**
- **an evaluation electronics unit (as recited in Claim 11), as seen in Figure 1;**
- **the electronic unit being operably associated with the sensor (as recited in Claim 11), as evidenced by Figure 1;**
- **the electronics unit initiating at least one switching process (as recited in Claim 11), column 3, lines 5-11;**
- **the switching process being based on the approach of a non metallic object toward the sensor (as recited in Claim 11), column 4, lines 53-56;**
- **the electronics unit generates a turn-on signal from a first approach (as recited in Claim 12), as evidenced in column 4, lines 54-59;**

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- **the electronics unit generates a turn-off signal from a second approach (as recited in Claim 12), as evidenced in column 4, lines 54-59;**
- **the sensor being provided with a preferred directivity (as recited in Claim 19), inherent, as any sensor has a given directivity;**
- **the sensor being provided with a sensitivity adjustment (as recited in Claim 20), as evidenced by Figure 1;**
- **the sensitivity adjustment being used to set the length of the desired approach distance (as recited in Claim 20), inherent;**
and
- **the electronics unit initiating the switching process based on the force-free touch of a non metallic object (as recited in Claim 21), as evidenced by column 4, lines 53-56.**

SCHULZ discloses all the limitations of the claims, except:

- a mirror housing of an automotive interior mirror module (as recited in Claim 11);
- the sensor being disposed in the mirror housing (as recited in Claim 11);
- the electronic unit being disposed in the mirror housing (as recited in Claim 11);
- a reading lamp (as recited in Claim 13);

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- the lamp being integrated in the housing (as recited in Claim 13);
- the lamp being turned on and off by the turn-on and turn-off signals (as recited in Claim 13);
- the automotive interior mirror module having a mirror base (as recited in Claim 14);
- the electronic unit being located in the mirror base (as recited in Claim 15);
- the electronic unit being an external unit located (as recited in Claim 16);
- the external unit being located externally from the mirror housing or the mirror base (as recited in Claim 16);
- the electronics unit being located in the housing (as recited in Claim 17);
- the sensor being a sensor array (as recited in Claim 18);
- the sensor being located in the lower corner region of the housing facing a driver (as recited in Claim 22); and
- the sensitive area of the sensor being at least ten times the size of a conventional mechanical push button (as recited in Claim 23).

DESMOND et al. discloses a vehicle illumination device having :

- **a mirror housing of an automotive interior mirror module (as recited in Claim 11), Figure 6, reference number 11;**
- **a switch, Figure 10, reference numbers 27 and 29;**

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- **the switch being disposed in the mirror housing (as recited in Claim 11), column 4, lines 37-40;**
- **an electronic unit disposed in the mirror housing (as recited in Claim 11), Figure 10, reference number 32;**
- **a reading lamp (as recited in Claim 13), Figure 10, reference numbers 63 and 78;**
- **the lamp being integrated in the housing (as recited in Claim 13), as seen in Figure 10;**
- **the lamp being turned on and off by the switch (as recited in Claim 13), column 4, lines 37-40;**
- **the automotive interior mirror module having a mirror base (as recited in Claim 14), Figure 6, reference number 17;**
- **the external unit being located externally from the mirror housing or the mirror base (as recited in Claim 16), as seen in Figure 6;**
- **the electronics unit being located in the housing (as recited in Claim 17), as seen in Figure 6; and**
- **the switch being located in the lower corner region of the housing facing a driver (as recited in Claim 22), as seen in Figure 1.**

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to combine the non-contact switch of SCHULZ and the

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vehicle illumination device of DESMOND et al. to equip such illumination device with a switch capable of being operated by the approaching hand of an user, as per the teachings of SCHULZ (see column 2, lines 24-29).

4. Regarding the electronic unit being located in the mirror base (as recited in Claim 15) or being an external unit (as recited in Claim 16), the applicant is advised that it has been held by the courts that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In this case, DESMOND et al. discloses the electronics 32 as been located inside of the mirror housing 32, however, locating such circuit board outside the mirror housing 11 would have flown naturally to one of ordinary skill in the art as necessitated by the specific requirements of a particular application. In addition, it is noted that the instant application is silent not only as to the relevance of a particular location of the electronic unit, but also fails to even disclose such electronic unit locate anywhere else but inside the mirror housing.

5. Regarding the sensor being a sensor array (as recited in Claim 18), the applicant is advised that it has been held by the courts that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In this case, DESMOND et al. discloses a plurality of switches 27 and 29 for controlling the illumination of lamps 63 and 78. Using more than one of the switches of SCHULZ to independently control the lamps of DESMOND et al. would have flown

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naturally to one of ordinary skill in the art at the time the invention was made, with such plurality of sensors broadly considered a "sensor array".

6. Regarding the sensitive area of the sensor being at least ten times the size of a conventional mechanical push button (as recited in Claim 23), the applicant is advised that it has been held by the courts that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In this case, SCHULZ discloses a proximity switch design to be activated by the approaching hand of a user. Determining the optimum size of the sensor plate would have flown naturally to one of ordinary skill in the art as part of the optimization process of the patented device.

Relevant Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Guetersloh (U.S. Pat. 3,829,850), **Murao** (U.S. Pat. 4,760,490) and **Pavaticich et al.** (U.S. Pat. 6,429,782) disclose proximity switches, the switching process being based on the approach of a non-metallic object toward the sensor and generating a turn-on signal from a first approach and a turn-off signal from a second approach of the a non-metallic object.

Response to Arguments

8. Applicant's arguments filed January 18, 2005 have been fully considered but they are not persuasive.

9. Regarding SCHULZ as it applies to newly presented Claim 11, the applicant argues that the cited reference fails to disclose all the features of the claimed invention, specifically a housing with the electronic unit being located internal or external to the housing, or the sensor having a preferred directivity. The applicant further argued that the Examiner's consideration of intended use of the "automotive interior mirror module" language was improper as SCHULZ specifically teaches the patented switch as being used for exterior automotive applications such as windshield wipers and door locks.

10. Regarding applicants arguments that SCHULZ fails to disclose a housing with the electronic unit being located internal or external to the housing, the applicant is advised that the concept of inherency is evaluated within the bounds established by the disclosure of SCHULZ. In this case, SCHULZ discloses an electronic circuit for a capacitive proximity switch; one of ordinary skill in the art would have recognized that such circuit would require a housing. Regarding the electronic unit being located internal or external to the housing, the applicant is directed to Section 4 of the instant Office Action were such limitations are addressed.

11. Regarding applicant's surprising arguments that the sensor having a preferred directivity is not inherent to the patented structure of SCHULZ, the applicant is reminded that each and every known sensing device inherently has a direction of sensitivity, and

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lacking any specifics as to the range of directivity the instant invention features (in the specification, claims or drawings), the claim language is sufficiently broad to read on any sensor directivity.

12. Regarding SCHULZ specifically teaching the patented switch as being used for exterior automotive applications such as windshield wipers and door locks, such arguments are considered mute as the applicant has amended the claims to positively recite the claimed proximity switch as being part of an automotive interior mirror module.

13. Regarding DESMOND et al. as it applies to newly presented Claim 11, the applicant argues that the cited reference fails to disclose all the features of the claimed invention, specifically a switching process based on the approach of a non-metallic object toward a sensor, such reference failing to provide motivation for the incorporation of the device of SHULZ.

14. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, SCHULZ discloses a proximity actuated switching circuit, using such switching circuit as the

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switch of DESMOND et al. would have flown naturally to one of ordinary skill in the art as detailed in Section 3 of the instant Office Action.

15. Regarding claims 12-23, the applicant present no additional arguments, except stating that such claims depend directly or indirectly from independent claim 11 and would be allowable when/if the independent claim is allowed.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ismael Negron whose telephone number is (703) 308-6086. The examiner can normally be reached on Monday-Friday from 9:00 A.M. to 6:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra L. O'Shea, can be reached on (703) 305-4939. The facsimile machine number for the Art Group is (703) 308-7382.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications maybe obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, go to <http://pair-direct.uspto.gov>. Should you have questions on access to Private PAIR system, contact the Electronic Business Center (EBC) toll-free at 866-217-9197.


Inr



JOHN ANTHONY WARD
PRIMARY EXAMINER

February 9, 2005